

# Temperature Sensor with IO-Link

## FXTT009

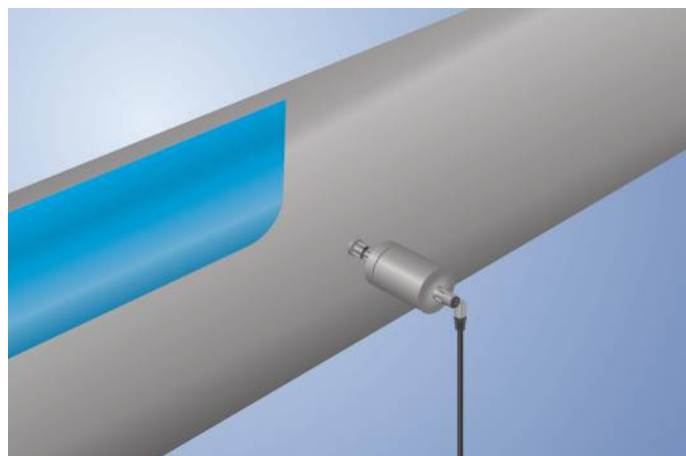
Part Number

weFlux<sup>2</sup> InoxSens



- FDA compliant
- Ready for Industry 4.0 with IO-Link 1.1
- Response time T90: < 2 seconds
- Temperature measuring range: -50 ... +150° C

weFlux<sup>2</sup> Temperature Sensors ensure precise temperature measurement of liquids and gases in closed piping systems. Either 2 switching outputs, 1 switching output and 1 analog output or one 2-wire analog output is available depending on settings and connection configuration. The outputs can be configured as desired via IO-Link in order to flexibly adapt the sensors to the respective application.



### Technical Data

#### Sensor-specific data

|                               |                |
|-------------------------------|----------------|
| Temperature Measurement Range | -50...150 °C   |
| Setting Range                 | -50...150 °C   |
| Medium                        | Liquids, gases |
| Measuring error               | ± 0,5 °C       |
| Resolution                    | > 11 bit       |
| Response Time                 | < 2 s          |

#### Environmental conditions

|                       |                |
|-----------------------|----------------|
| Temperature of medium | -50...150 °C   |
| Ambient temperature   | -25...80 °C    |
| Storage temperature   | -25...80 °C    |
| Pressure Resistance   | 100 bar        |
| EMC                   | DIN EN 61326-1 |
| Shock Resistance      | IEC 60751      |
| Vibration resistance  | IEC 60751      |

#### Electrical Data

|                                             |              |
|---------------------------------------------|--------------|
| 2-wire supply power                         | 12...32 V DC |
| 3-wire supply power                         | 12...32 V DC |
| Current Consumption (U <sub>b</sub> = 24 V) | < 15 mA      |
| Number of Switching Outputs                 | 2            |
| Switching Output/Switching Current          | ± 100 mA     |
| Switching Output Voltage Drop               | < 1,5 V DC   |
| Analog Output                               | 4...20 mA    |
| Signal source                               | Temperature  |
| Short Circuit Protection                    | yes          |
| Reverse Polarity Protection                 | yes          |
| Protection Class                            | III          |
| Interface                                   | IO-Link V1.1 |

#### Mechanical Data

|                                 |                    |
|---------------------------------|--------------------|
| Setting Method                  | IO-Link            |
| Housing Material                | 1.4404             |
| Material in contact with media  | 1.4404             |
| Degree of Protection            | IP68/IP69K *       |
| Connection                      | M12 × 1; 4-pin     |
| Process Connection              | G 1/2" CIP-capable |
| Process Connection Length (PCL) | 60 mm              |
| Probe Length (PL)               | 16,4 mm            |

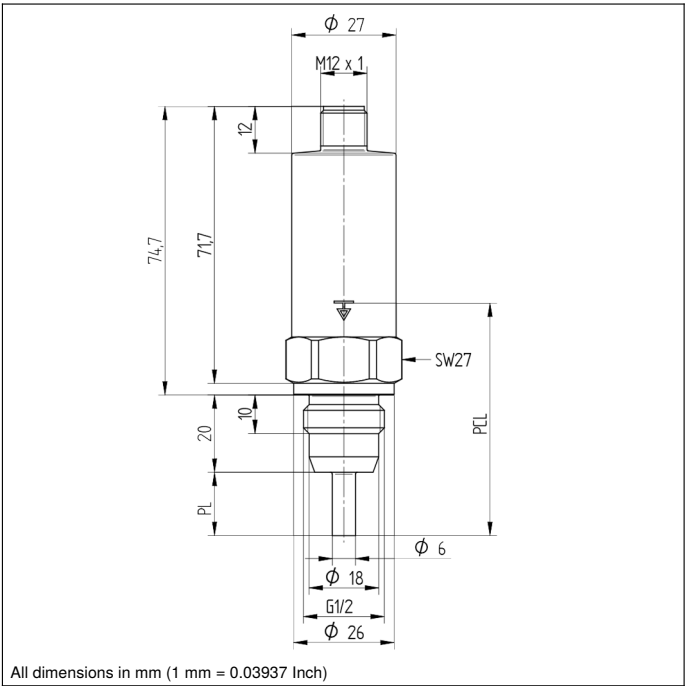
#### Safety-relevant Data

|                                   |          |
|-----------------------------------|----------|
| MTTFd (EN ISO 13849-1)            | 1198,4 a |
| Analog Output                     | ●        |
| IO-Link                           | ●        |
| PNP NO                            | ●        |
| Connection Diagram No.            | 139      |
| Suitable Connection Equipment No. | 2        |
| Suitable Mounting Technology No.  | 906      |

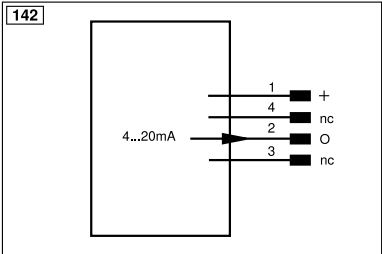
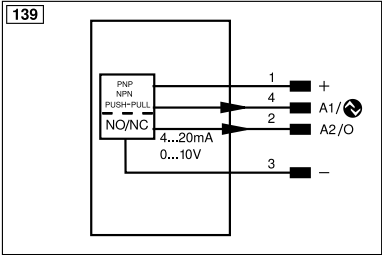
\* Certified by wenglor

### Complementary Products

|                |  |
|----------------|--|
| IO-Link Master |  |
| Software       |  |



All dimensions in mm (1 mm = 0.03937 Inch)



| Legend    |                                            |           |                                |                                        |                     |
|-----------|--------------------------------------------|-----------|--------------------------------|----------------------------------------|---------------------|
| +         | Supply Voltage +                           | nc        | Not connected                  | ENBRS422                               | Encoder B/B (TTL)   |
| -         | Supply Voltage 0 V                         | U         | Test Input                     | ENA                                    | Encoder A           |
| ~         | Supply Voltage (AC Voltage)                | Ü         | Test Input inverted            | ENb                                    | Encoder B           |
| A         | Switching Output (NO)                      | W         | Trigger Input                  | AMIN                                   | Digital output MIN  |
| Ä         | Switching Output (NC)                      | W-        | Ground for the Trigger Input   | AMAX                                   | Digital output MAX  |
| V         | Contamination/Error Output (NO)            | O         | Analog Output                  | AOK                                    | Digital output OK   |
| Ȳ         | Contamination/Error Output (NC)            | O-        | Ground for the Analog Output   | SY In                                  | Synchronization In  |
| E         | Input (analog or digital)                  | BZ        | Block Discharge                | SY OUT                                 | Synchronization OUT |
| T         | Teach Input                                | Amv       | Valve Output                   | OLT                                    | Brightness output   |
| Z         | Time Delay (activation)                    | a         | Valve Control Output +         | M                                      | Maintenance         |
| S         | Shielding                                  | b         | Valve Control Output 0 V       | rsv                                    | Reserved            |
| RxD       | Interface Receive Path                     | SY        | Synchronization                | Wire Colors according to DIN IEC 60757 |                     |
| TxD       | Interface Send Path                        | SY-       | Ground for the Synchronization | BK                                     | Black               |
| RDY       | Ready                                      | E+        | Receiver-Line                  | BN                                     | Brown               |
| GND       | Ground                                     | S+        | Emitter-Line                   | RD                                     | Red                 |
| CL        | Clock                                      | ±         | Grounding                      | OG                                     | Orange              |
| E/A       | Output/Input programmable                  | SnR       | Switching Distance Reduction   | YE                                     | Yellow              |
| IO-Link   | IO-Link                                    | Rx+/-     | Ethernet Receive Path          | GN                                     | Green               |
| PoE       | Power over Ethernet                        | Tx+/-     | Ethernet Send Path             | BU                                     | Blue                |
| IN        | Safety Input                               | Bus       | Interfaces-Bus A(+)/B(-)       | VT                                     | Violet              |
| OSSD      | Safety Output                              | La        | Emitted Light disengageable    | GY                                     | Grey                |
| Signal    | Signal Output                              | Mag       | Magnet activation              | WH                                     | White               |
| BL_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES       | Input confirmation             | PK                                     | Pink                |
| ENo RS422 | Encoder 0-pulse 0/Ü (TTL)                  | EDM       | Contact Monitoring             | GNYE                                   | Green/Yellow        |
| PT        | Platinum measuring resistor                | ENARIS422 | Encoder A/A (TTL)              |                                        |                     |